



UNIL-21/735555\_2

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:	)	
	)	Before the Examiner
Rama Ratnam et al.	)	Corey P. Chau
	)	
Application Serial No. 10/807,885	)	
	)	Group Art Unit 2615
Filed: March 24, 2004	)	
	)	
DETERMINING REVERBERATION	)	Atty Docket: UNIL-21
TIME	)	

**INVENTOR DECLARATION**

We, the named inventors of the above-indicated patent application (the "Subject Application"), hereby declare as follows:

1. We have reviewed the Subject Application and the currently pending claims (the "Claims") as attached in exhibit A, and hereby confirm that we are joint inventors of the inventions set forth in the Claims. The Board of Trustees for the University of Illinois is the sole owner of the subject application and all inventions claimed therein as evidenced by the assignment recorded at reel/frame number 015142/0467.
2. We have reviewed the priority application, U.S. Provisional Patent Application No. 60/466,133, filed April 28, 2003, (the "Provisional Application") as attached in exhibit B, and hereby confirm that the subject matter set forth in the Claims is supported by the Provisional Application and the Subject Application.
3. Invention documentation entitled: "System for Blind Determination of Reverberation Time in Unknown Acoustic Environments Using Passively Received Sounds" (the "Invention Report") is attached hereto in exhibit C in a

partially redacted form. Redactions are provided to remove certain dates, the name of certain individuals each of whom is not a named inventor, certain funding sources, and other confidential information. Included along with the Invention Report was a draft of the document entitled: "The Blind Estimation of Reverberation Time" (the "Manuscript"), which is attached hereto in exhibit D.

4. We conceived of the inventions defined by the Claims at least as early as October 2002. A copy of the October 2002 Monthly Progress Report of the project (the "October 2002 Report") is attached hereto as exhibit E. The October 2002 Report indicates a first draft of the Manuscript was completed.
5. A copy of the November 2002 Monthly Progress Report of the project (the "November 2002 Report") is attached hereto as exhibit F. Redactions are provided to remove the name of certain individuals each of whom is not a named inventor, unrelated projects, and other confidential information. The November 2002 Report indicates, on November 8, 2002, the first draft of the Manuscript was sent to the group for comments. The November 2002 Report also indicates that a first draft of the Invention Report for the reverberation time (RT) estimator was prepared.
6. Between the dates of December 1, 2002 and February 6, 2003, the Invention Report and/or the Manuscript continued to be revised and refined.
7. The Invention Report and the Manuscript were submitted to the Research and Technology Management Office for the University of Illinois. A "received" stamp date of February 7, 2003 is evident on the first page of each.
8. Based on information and belief, between the dates of February 7, 2003 and April 28, 2003; personnel of the Research and Technology Management Office for the University of Illinois reviewed the Invention Report and contacted outside patent

Declaration Under 37 CFR 1.131

Inventors: Ratnam et al.

Application No.: 10/807,885

Filed: March 24, 2004

Page 2 of 4

counsel (the "Outside Counsel") to initiate preparation of the Provisional Application based on the Invention Report.

9. A copy of a facsimile cover page dated April 25, 2003 is attached in Exhibit G. The subject matter of the Application was referred to as the "Feng Disclosure TFO3008" in this April 25th facsimile cover page. The facsimile indicates that Scott Paynter, counsel of record, was assigned as the Outside Counsel and was involved in preparation on or about April 25, 2003.
10. Based on information and belief, a draft of the Provisional Application was filed on April 28, 2003.
11. Based on information and belief, a draft of the Subject Application was forwarded to the inventors on or about January 30, 2004, was revised, and then filed on March 24, 2004.
12. The Invention Report summarizes problems addressed by one or more of the inventions of the Claims in section 8 on page 6.
13. Further description of inventive activity is provided in sections 9-12 on pages 6-8 of the Invention Report and in the Manuscript.
14. Experiments were conducted to demonstrate the maximum-likelihood estimation (MLE) method in the Manuscript (pages 15-32). This demonstration indicated the system was suitable for its intended purpose in the relevant technical fields. Corresponding experimental information was included in the Experimental Section of the Subject Application on pages 29-40.
15. All non-inventors that received invention information as described in the Invention Report were under an obligation not to disclose such information and/or

Declaration Under 37 CFR 1.131

Inventors: Ratnam et al.

Application No.: 10/807,885

Filed: March 24, 2004

Page 3 of 4

received such information less than a year before filing the Provisional Application.

16. The undersigned, being hereby warned that willful false statements and the like are punishable by a fine or imprisonment, or both (18 USC §1001), and may jeopardize the validity of the application or any patent issuing thereon, declares that all statements made of his or her own knowledge are true and that all statements made on information and belief are believed to be true.

Date: \_\_\_\_\_

\_\_\_\_\_  
Rama Ratnam

Date: December 13, 2006

\_\_\_\_\_  
*Douglas L. Jones*  
Douglas L. Jones

Date: December 14, 2006

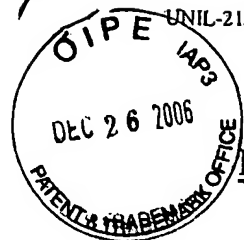
\_\_\_\_\_  
*Albert S. Feng*  
Albert S. Feng

Date: December 13, 2006

\_\_\_\_\_  
*Charissa Lansing*  
Charissa Lansing

Date: December 14, 2006

\_\_\_\_\_  
*W. D. O'Brien*  
William D. O'Brien



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:	)	
	)	Before the Examiner
Rama Ratnam et al.	)	Corey P. Chau
	)	
Application Serial No. 10/807,885	)	
	)	Group Art Unit 2615
Filed: March 24, 2004	)	
	)	
DETERMINING REVERBERATION	)	Atty Docket: UNIL-21
TIME	)	

## INVENTOR DECLARATION

We, the named inventors of the above-indicated patent application (the "Subject Application"), hereby declare as follows:

1. We have reviewed the Subject Application and the currently pending claims (the "Claims") as attached in exhibit A, and hereby confirm that we are joint inventors of the inventions set forth in the Claims. The Board of Trustees for the University of Illinois is the sole owner of the subject application and all inventions claimed therein as evidenced by the assignment recorded at reel/frame number 015142/0467.
2. We have reviewed the priority application, U.S. Provisional Patent Application No. 60/466,133, filed April 28, 2003, (the "Provisional Application") as attached in exhibit B, and hereby confirm that the subject matter set forth in the Claims is supported by the Provisional Application and the Subject Application.
3. Invention documentation entitled: "System for Blind Determination of Reverberation Time in Unknown Acoustic Environments Using Passively Received Sounds" (the "Invention Report") is attached hereto in exhibit C in a

partially redacted form. Redactions are provided to remove certain dates, the name of certain individuals each of whom is not a named inventor, certain funding sources, and other confidential information. Included along with the Invention Report was a draft of the document entitled: "The Blind Estimation of Reverberation Time" (the "Manuscript"), which is attached hereto in exhibit D.

4. We conceived of the inventions defined by the Claims at least as early as October 2002. A copy of the October 2002 Monthly Progress Report of the project (the "October 2002 Report") is attached hereto as exhibit E. The October 2002 Report indicates a first draft of the Manuscript was completed.
5. A copy of the November 2002 Monthly Progress Report of the project (the "November 2002 Report") is attached hereto as exhibit F. Redactions are provided to remove the name of certain individuals each of whom is not a named inventor, unrelated projects, and other confidential information. The November 2002 Report indicates, on November 8, 2002, the first draft of the Manuscript was sent to the group for comments. The November 2002 Report also indicates that a first draft of the Invention Report for the reverberation time (RT) estimator was prepared.
6. Between the dates of December 1, 2002 and February 6, 2003, the Invention Report and/or the Manuscript continued to be revised and refined.
7. The Invention Report and the Manuscript were submitted to the Research and Technology Management Office for the University of Illinois. A "received" stamp date of February 7, 2003 is evident on the first page of each.
8. Based on information and belief, between the dates of February 7, 2003 and April 28, 2003; personnel of the Research and Technology Management Office for the University of Illinois reviewed the Invention Report and contacted outside patent

counsel (the "Outside Counsel") to initiate preparation of the Provisional Application based on the Invention Report.

9. A copy of a facsimile cover page dated April 25, 2003 is attached in Exhibit G. The subject matter of the Application was referred to as the "Feng Disclosure TFO3008" in this April 25th facsimile cover page. The facsimile indicates that Scott Paynter, counsel of record, was assigned as the Outside Counsel and was involved in preparation on or about April 25, 2003.
10. Based on information and belief, a draft of the Provisional Application was filed on April 28, 2003.
11. Based on information and belief, a draft of the Subject Application was forwarded to the inventors on or about January 30, 2004, was revised, and then filed on March 24, 2004.
12. The Invention Report summarizes problems addressed by one or more of the inventions of the Claims in section 8 on page 6.
13. Further description of inventive activity is provided in sections 9-12 on pages 6-8 of the Invention Report and in the Manuscript.
14. Experiments were conducted to demonstrate the maximum-likelihood estimation (MLE) method in the Manuscript (pages 15-32). This demonstration indicated the system was suitable for its intended purpose in the relevant technical fields. Corresponding experimental information was included in the Experimental Section of the Subject Application on pages 29-40.
15. All non-inventors that received invention information as described in the Invention Report were under an obligation not to disclose such information and/or

received such information less than a year before filing the Provisional Application.

16. The undersigned, being hereby warned that willful false statements and the like are punishable by a fine or imprisonment, or both (18 USC §1001), and may jeopardize the validity of the application or any patent issuing thereon, declares that all statements made of his or her own knowledge are true and that all statements made on information and belief are believed to be true.

Date: 12/05/06

B. Ratnam  
Rama Ratnam

Date: \_\_\_\_\_

\_\_\_\_\_  
Douglas L. Jones

Date: \_\_\_\_\_

\_\_\_\_\_  
Albert S. Feng

Date: \_\_\_\_\_

\_\_\_\_\_  
Charissa Lansing

Date: \_\_\_\_\_

\_\_\_\_\_  
William D. O'Brien